AMENDMENTS TO THE CLAIMS:

1.-18. (Cancelled)

19. (New) A fusion device for facilitating arthrodesis in a disc space between adjacent vertebrae, comprising:

an elongate body having a length and defining external threads extending substantially entirely along said length, said elongate body at least partially formed of a porous biocompatible material to permit bone tissue ingrowth into said elongated body.

20. (New) The fusion device of claim 19, wherein said porous biocompatible material is a composite comprising an open-celled substrate having interconnected porosity, said open-celled substrate infiltrated with a metal.

21. (New) The fusion device of claim 20, wherein said open-celled substrate is a carbonaceous material.

22. (New) The fusion device of claim 20, wherein said open-celled substrate is a carbon foam.

23. (New) The fusion device of claim 20, wherein said metal comprises a group VB metal.

24. (New) The fusion device of claim 23, wherein said metal is tantalum.

25. (New) The fusion device of claim 19, wherein said porous biocompatible material has a modulus of elasticity approximately equal to a modulus of elasticity of human bone.

26. (New) The fusion device of claim 19, wherein said external threads are circumferentially interrupted by a pair of oppositely disposed truncated side walls to define a pair of threaded arcuate side walls extending along said length.

27. (New) The fusion device according to claim 26, wherein said pair of threaded arcuate side walls are tapered along a substantial portion of said length of said elongate body.

28. (New) The fusion device according to claim 26, wherein said elongate body defines a hollow interior, said pair of threaded arcuate side walls each defining at least one opening extending therethrough in communication with said hollow interior.

29. The fusion device according to claim 28, further comprising a bone growth inducing material disposed within said hollow interior.

30. (New) The fusion device according to claim 19, wherein said elongate body has a substantially solid configuration.

31. (New) The fusion device according to claim 19, wherein said elongate body has a first diameter adjacent a first end thereof and a larger second diameter adjacent an opposite second end thereof, said first and second diameters sized to be greater than the disc space between the adjacent vertebrae.

32. (New) A fusion device for facilitating arthrodesis in a disc space between adjacent vertebrae, comprising:

an elongate body having a hollow interior and at least one opening in communication with said hollow interior, said elongate body at least partially formed of a porous biocompatible material to permit bone tissue ingrowth into said elongated body.

33. (New) The fusion device according to claim 32, further comprising a bone growth inducing material disposed within said hollow interior.

34. (New) The fusion device of claim 32, wherein said porous biocompatible material is a composite comprising an open-celled substrate having interconnected porosity, said substrate infiltrated with a metal.

35. (New) The fusion device of claim 34, wherein said open-celled substrate is a carbonaceous material.

36. (New) The fusion device of claim 34, wherein said metal comprises a group VB metal.

37. (New) The fusion device of claim 32, wherein said elongate body has a length and defines external threads extending substantially entirely along said length.

38. (New) The fusion device of claim 37, wherein said external threads are circumferentially interrupted by a pair of oppositely disposed truncated side walls to define a pair of threaded arcuate side walls extending along said length, said at least one opening extending through a corresponding one of said threaded arcuate side walls.

39. (New) The fusion device of claim 32, wherein said elongate body has a length and includes a pair of oppositely disposed truncated side walls and a pair of arcuate side walls extending therebetween along said length.

40. (New) A fusion device for facilitating arthrodesis in a disc space between adjacent vertebrae, comprising:

an elongate body having a length and including a pair of oppositely disposed arcuate side walls extending along said length and adapted for engagement with the adjacent vertebrae, said elongate body at least partially formed of a porous biocompatible material to permit bone tissue ingrowth into said arcuate side walls.

41. (New) The fusion device of claim 40, wherein said porous biocompatible material is a composite comprising an open-celled substrate having interconnected porosity, said substrate infiltrated with a metal.

42. (New) The fusion device of claim 41, wherein said open-celled substrate is a carbonaceous material.

43. (New) The fusion device of claim 41, wherein said metal comprises a group VB metal.

44. (New) The fusion device of claim 40, wherein said arcuate side walls define external threads extending substantially entirely along said length.

45. (New) The fusion device of claim 40, further comprising a pair of truncated side walls extending between said arcuate side walls.

46. (New) The fusion device of claim 40, wherein said elongate body has a hollow interior and at least one opening in communication with said hollow interior.

47. (New) The fusion device according to claim 46, further comprising a bone growth inducing material disposed within said hollow interior.

48. (New) The fusion device of claim 46, wherein said at least one opening extends through a corresponding one of said arcuate side walls.

49. (New) The fusion device according to claim 40, wherein said elongate body has a substantially solid configuration.

50. (New) The fusion device of claim 40, wherein said elongate body is substantially continuously tapered along said length.